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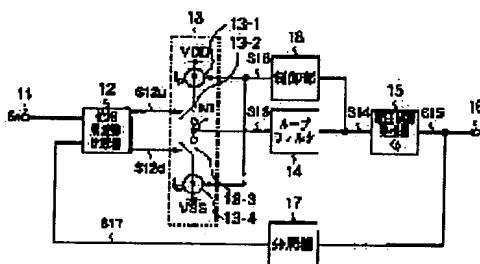
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(54) PHASE LOCKED LOOP CIRCUIT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a phase locked loop circuit that is stable in operation over a wide frequency band.

SOLUTION: A phase frequency comparator 12 compares a phase and a frequency of an input signal Si with those of a comparison signal S17 and provides an output of a phase lead signal S12u and a phase lag signal S12d. The phase lead signal S12u or the phase lag signal S12d is given to a charge pump 13, which provides an output of an output signal S13. A loop filter 14 smoothes the output signal S13 and provides an output of a control voltage S14. The control voltage S14 is given to a voltage controlled oscillator 15, which outputs an output signal S15. A frequency divider 17 frequency-divides the output signal S15, which gives a comparison signal S17 to the phase frequency comparator 12. Moreover, a control section 18 converts the control voltage S14 into a control signal S18. When the frequency of the input signal Si is low, the control voltage S14 is low, a current Ip of current sources 13-1, 13-4 is small, and when the frequency is high, the control signal S14 is high and the current Ip is high.



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